

**REMARKS**

Claims 1-8, 10-12, 14, and 16-28 are currently pending in the application. Claims 1-3, 8, 10-12, 14, 23, 25, 27, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,964,886 (Slaughter) in view of U.S. Patent No. 5,634,122 (Loucks).

Slaughter is directed to a cluster that implements a virtual disk system that provides each node of the cluster access to each storage device of the cluster. According to Slaughter, when a client (312A, as illustrated in Figure 3) accesses data from a storage device, it sends a data access request to a net disk drive (318A). The net disk drive 318A may then route the data access request to a primary node if the primary node is active or to a secondary node if the primary node is not active.

Loucks is directed to a system of providing a hierarchical control mechanism for synchronizing access to data files. A local authorization token manager controls access to shared resources. Only computer processes holding authorization tokens for the requested operation may perform an operation. Each requested operation checks for the proper token. If the token is not held by a process, it is requested. The local token manager resolves token conflicts before granting tokens.

In the present invention, a first node is provided that includes a first token managing portion and an I/O request intercepting portion accepting access to a file, and the *access takes place in the first node* when the IO request intercepting portion is capable of acquiring the access permission.

Applicants respectfully submit that independent claims 1, 2, 8, 10, 11, 12, 14, and 27-28 are patentable over the references, as neither of the references, alone or in combination, teaches or suggests, a first node that includes an I/O request intercepting portion accepting access to a file, the access taking place in the first node when said IO request intercepting portion is capable of acquiring the access permission, as indicated by the language of claim 1, for example.

In contrast to the present invention, in Slaughter, the net disk drive 318A does not include an I/O request intercepting portion that accepts access to a file. Rather, the net disk drive 318A simply forwards the request to either a primary node or a secondary node. Moreover, assuming *arguendo* that the net disk drive 318 A is the "first node," unlike the present invention, in

Slaughter, access does not occur in the net disk drive 318A, as the drive merely forwards a data access request to other nodes.

Assuming *arguendo* that the primary node is the "first node," Slaughter does not indicate that the primary node includes an IO request interception portion that asks a permitted node that has update permission for the file to access the file. In fact, the primary node is simply forwarded a data access request, when active, from the net disk drive.

As Loucks is not related to replicating files and file permissions, Loucks does not provide a disclosure or suggestion regarding the above-identified feature. Therefore, neither Slaughter nor Loucks, alone or in combination, teaches or suggests the above-identified features of the claims.

As Tavares adds nothing of relevance to the combination of Slaughter and Loucks, the independent claims of the present invention are patentable over Slaughter in view of Loucks and further in view of Tavares.

According to the Examiner, the combination of Slaughter and Loucks discloses "asking said first token managing portion to acquire the access permission against the access request, and asking the permitted node that has update permission from the shared file to access to the shared file when said first token managing portion is not capable of acquiring the access permission" conducted by the IO request intercepting portion.

Applicants respectfully submit that the Examiner has not specifically shown where in the cited documents the feature of the present invention regarding another node asking the permitted node that has update permission for access to the shared file is disclosed. Moreover, the combination does not include any description corresponding to such a process.

Applicants further submit that the configuration provides the effect of minimizing the influence on the system operation of a newly jointed node, which is not included in the cited combination. See specification of the present invention, page 5, lines 6-12.

In item 9 of the Office Action, the Examiner appears to be alleging that the relation between the update permission and token management is unclear in claim 1. Applicants respectfully submit that the case in which the update permission is given is when an access token (a read or write token) can be immediately given to the node requesting the permission, and the case in which the update permission is not given is when the access token cannot be immediately given to the node requesting the permission (such as when required to wait for update propagation).

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As dependent claims 3-7 and 16-26 depend from independent claims 2 and 14, respectively, the dependent claims are patentable over the references for at least the reasons presented above for the independent claims.

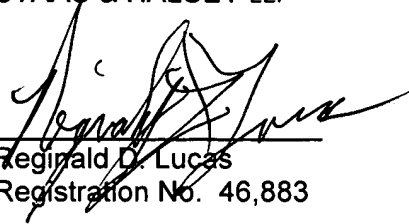
If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: 11/13/06

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